4.2 Indices: 10-minute Pack

EDEXCEL 1MA1 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Work out 10^2.

(Total for Question 1 is 1 mark)

2 Simplify 3×3^2.

(Total for Question 2 is 2 marks)

3 Simplify $(8a^3) / (4a)$

(Total for Question 3 is 2 marks)

4 Find the value of n.
$(7^n)^2 = 7^4$

(Total for Question 4 is 2 marks)

5 Write 0.00072 in standard form ($a \times 10^n$ where $1 \leq a < 10$).

(Total for Question 5 is 2 marks)

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Mark scheme · 4.2 Indices: 10-minute Pack

Question 1

100 cao	**B1**

Answer: 100

Question 2

work shown: $3 \times 3^2 = 3 \times 9$ or use laws $3^1 \times 3^2 = 3^3$	**M1**
27 cao	**A1**

Answer: 27

Question 3

correct coefficient	**B1**
correct power(s) of the letter(s)	**B1**

Answer: $2a^2$

Question 4

applies the index law or writes both sides as powers of the same base	**M1**
n = 2	**A1**

Answer: n = 2

Question 5

move decimal point 4 places to the right to get 7.2	**M1**
7.2×10^{-4} cao	**A1**

Answer: 7.2×10^{-4}

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